IN THE CLAIMS

1. (currently amended) A method for treating acute ~~promyelogenous~~ promyelocytic leukemia in a human comprising administering a therapeutically effective dosage amount of about 0.15 mg/kg arsenic trioxide once per day.

2. (original) The method of claim 1, wherein said arsenic trioxide is administered until bone marrow remission, which constitutes a first administration.

3. (original) The method of claim 2, further comprising a second administration of a therapeutically effective dosage amount of about 0.15 mg/kg arsenic trioxide once per day for 25 doses.

4. (original) The method of claim 3, wherein said second administration is administered 3 to 6 weeks after said first administration.

5. (original) The method of claim 4, wherein said second administration is administered for up to five weeks.

6. (original) The method of claim 5, wherein said second administration is administered at five doses per week.

7. (original) The method of claim 3, further comprising repeating said second administration.

8. (original) The method of claim 7, wherein said second administration is repeated every 3 to 6 weeks.

9. (original) The method of claim 8, wherein said second administration is repeated until a total of between two and ten cycles of said second administration are completed.

10. (original) The method of claim 9, further comprising repeating said second administration until a total of two cycles of said second administration are completed.

11. (original) The method of claim 9, further comprising repeating said second administration until a total of ten cycles of said second administration are completed.

12. (original) The method of claim 1, wherein said arsenic trioxide is administered for up to sixty days, which constitutes a first administration.

13. (original) The method of claim 12, further comprising a second administration of a therapeutically effective dosage amount of about 0.15 mg/kg arsenic trioxide once per day for 25 doses.

14. (original) The method of claim 13, wherein said second administration is administered 3 to 6 weeks after said first administration.

15. (original) The method of claim 14, wherein said second administration is administered for up to five weeks.

16. (original) The method of claim 15, wherein said second administration is administered at five doses per week.

17. (original) The method of claim 13, further comprising repeating said second administration.

18. (original) The method of claim 17, wherein said second administration is repeated every 3 to 6 weeks.

19. (original) The method of claim 18, wherein said second administration is repeated until a total of between two and ten cycles of said second administration are completed.

20. (original) The method of claim 19, further comprising repeating said second administration until a total of two cycles of said second administration are completed.

21. (original) The method of claim 19, further comprising repeating said second administration until a total of ten cycles of said second administration are completed.